

1 49. (New) A method for producing a PDP comprising:
2 a first step of attaching a first electrode onto a main surface of a first plate and
3 forming a dielectric layer on a surface of the first electrode with a vacuum process method;
4 a second step of preparing a second plate; and
5 a third step of placing the first plate and the second plate in parallel to face each
6 other, with spacing means being placed between the first plate and the second plate, so that a
7 discharge space is formed between the first plate and the second plate.

51 1 50. (New) The method for producing a PDP defined in Claim 49, wherein
2 the dielectric layer formed in the first step is a compound including at least one of
3 zirconium, titanium, zinc, bismuth, cesium, silicon, aluminium, antimony, and magnesium.

1 51. (New) The method for producing a PDP defined in Claim 49, wherein
2 between the first step and the second step, there is a step for forming a magnesium
3 oxide protecting layer for protecting the dielectric layer with a vacuum process method
4 immediately after the dielectric layer is formed in the first step.

1 52. (New) The method for producing a PDP defined in Claim 49, wherein
2 the vacuum process method used in the first step is a CVD method.

1 53. (New) The method for producing a PDP defined in Claim 52, wherein
2 a compound is used as a source material for the CVD method in the first step, the
3 compound including at least one of zirconium, titanium, zinc, bismuth, cesium, silicon,
4 aluminium, antimony, and magnesium.

1 54. (New) The method for producing a PDP defined in Claim 49, wherein
2 the first plate used in the first step is made of borosilicate glass including 6.5% or
3 less by weight of alkali.

1 55. (New) A method for producing a PDP comprising:
2 a first step of attaching a first electrode onto a main surface of a first plate and
3 forming a dielectric layer on a surface of the first electrode with a plasma spraying method;
4 a second step of preparing a second plate; and
5 a third step of placing the first plate and the second plate in parallel to face each
6 other, with spacing means being placed between the first plate and the second plate, so that a
7 discharge space is formed between the first plate and the second plate.

1 56. (New) The method for producing a PDP defined in Claim 55, wherein
2 a material for the plasma spraying method in the first step is one of a glass
3 containing lead oxide (PbO), boron oxide (B₂O₃), silicon dioxide (SiO₂), and aluminium oxide
4 (Al₂O₃), and a glass containing phosphorus oxide (P₂O₅), zinc oxide (ZnO), aluminium oxide
5 (Al₂O₃), and calcium oxide (CaO), wherein
6 a thermal expansion coefficient of each of the glasses is in a range of $45 \times 10^{-7}/^{\circ}\text{C}$
7 to $50 \times 10^{-7}/^{\circ}\text{C}$.

- 1 57. (New) The method for producing a PDP defined in Claim 55, wherein,
2 the first plate used in the first step is made of borosilicate glass including 6.5% or
3 less by weight of alkali.
- 1 58. (New) A method for producing a PDP comprising:
2 a first step of attaching a first electrode onto a main surface of a first plate, and
3 forming with a plasma spraying method a plurality of partition walls on the main surface of the
4 first plate, wherein at least a part of the first electrode is exposed;
5 a second step of preparing a second plate; and
6 a third step of placing the first plate and the second plate in parallel to face each
7 other, with the plurality of partition walls being placed between the first plate and the second
8 plate so that a discharge space is formed between the first plate and the second plate.
- 1 59. (New) The method for producing a PDP defined in Claim 58, wherein
2 a source material for the plasma spraying method in the first step is at least one of
3 aluminium oxide (Al_2O_3) and mullite ($3(\text{Al}_2\text{O}_3 \cdot 2 \text{SiO}_2)$).
- 1 60. (New) The method for producing a PDP defined in Claim 58, wherein
2 between the first step and the second step, a dielectric layer is formed to coat the
3 main surface of the first plate on which the first electrode and the plurality of partition walls
4 exist.
- 1 61. (New) The method for producing a PDP defined in Claim 58, wherein
2 the first plate used in the first step is made of borosilicate glass including 6.5% or
3 less by weight of alkali.